

ABSTRACT:

A known encoder 100 comprises a segmentation unit 110 for segmenting an audio or speech signal s into at least one segment $x(n)$ and a calculation unit 120 for calculating sinusoidal code data in the form of frequency and amplitude data of a given extension $\hat{x}(n)$ from the segment $x(n)$ such that the extension $\hat{x}(n)$ approximates the segment $x(n)$ as good as possible for a given criterion. It is the object of the invention to improve the known encoder such that the calculation of said sinusoidal code data can be carried out in a simpler and cheaper way. This object is solved according to the invention by calculating the sinusoidal code data θ'_k , d'_j and e'_j for the segment $x(n)$ according to the following extension \hat{x} :

$$\hat{x} = \sum_{i=1}^L \sum_{j=0}^{J-1} [d'_j f_j(n) \cos(\Theta'(n)) + e'_j f_j(n) \sin(\Theta'(n))].$$

Fig. 1.